



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2021-1180; Project Identifier MCAI-2021-00794-R; Amendment 39-21967; AD 2022-06-01]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Airbus Helicopters Deutschland GmbH Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all Airbus Helicopters Deutschland GmbH Model MBB-BK 117 D-3 helicopters. This AD was prompted by reports of a main rotor (M/R) blade lead-lag damper in a tilted position. This AD requires inspecting the Flex Control Unit (FCU), and corrective actions if necessary, as well as rework and re-identification of the bearing pin, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For EASA material incorporated by reference (IBR) in this final rule, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find the EASA material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1180.

## **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1180; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the EASA AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email [andrea.jimenez@faa.gov](mailto:andrea.jimenez@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Background**

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0160, dated July 5, 2021 (EASA AD 2021-0160), to correct an unsafe condition for Airbus Helicopters Deutschland GmbH (AHD), formerly Eurocopter Deutschland GmbH, Model MBB-BK117 D-3 helicopters, all serial numbers, including Model MBB-BK117 D-2 helicopters that have been converted into Model MBB-BK117 D-3 helicopters through Airbus Helicopters Service Bulletin MBB-BK117 D-2-00-003.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Airbus Helicopters Deutschland GmbH Model MBB-BK 117 D-3 helicopters. The NPRM published in the *Federal Register* on January 14, 2022 (87 FR 2368). The NPRM was prompted by reports of an M/R blade lead-lag damper in a tilted position. EASA advises that subsequent investigation results determined that the tolerances stack-up may lead to an insufficient clamping on the bearing pin. The NPRM proposed to require inspecting the FCU, and corrective actions if necessary, as well as rework and re-identification of the bearing pin.

The FAA is issuing this AD to address this unsafe condition, which if not detected and corrected, could result in an unbalance of the M/R system, excessive vibration, and reduced control of the helicopter. See EASA AD 2021-0160 for additional background information.

### **Discussion of Final Airworthiness Directive**

#### **Comments**

The FAA received no comments on the NPRM or on the determination of the costs.

#### **Conclusion**

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters. This AD is adopted as proposed in the NPRM.

### **Related Service Information Under 1 CFR Part 51**

EASA AD 2021-0160 requires a one-time inspection of the affected FCU and depending on findings, accomplishment of applicable corrective actions. EASA AD 2021-0160 also requires after the initial FCU inspection, re-working and re-identifying each affected part by marking the part with a letter "M." EASA AD 2021-0160 also prohibits installing an affected FCU or affected part on any helicopter.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Other Related Service Information**

The FAA reviewed Airbus Helicopters Alert Service Bulletin ASB MBB-BK117 D-3-62A-002, dated June 29, 2021, which specifies procedures for a one-time inspection of the FCU and re-work of the bearing pin installed on the support assembly.

### **Costs of Compliance**

The FAA estimates that this AD affects 41 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Inspecting each FCU, including inspecting each rotor hub-shaft, hexagonal screw, nut, damper assembly, bearing pin, support assembly, spherical bearing, and integrated bearing sleeve, takes about 3 work-hours for an estimated cost of \$255 per FCU inspection and \$10,455 for the U.S. fleet per FCU inspection.

Reworking and re-identifying the bearing pin takes about 0.5 work-hour for an estimated cost of \$43 per helicopter and \$1,763 for the U.S. fleet per bearing pin.

The FAA has received no definitive data on which to base the cost estimates for the on-condition repairs specified in this AD.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the

national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**2022-06-01 Airbus Helicopters Deutschland GmbH:** Amendment 39-21967; Docket No. FAA-2021-1180; Project Identifier MCAI-2021-00794-R.

#### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Airbus Helicopters Deutschland GmbH Model MBB-BK 117 D-3 helicopters, certificated in any category.

Note 1 to paragraph (c) of this AD: Model MBB-BK117 D-2 helicopters that have been converted into Model MBB-BK117 D-3 helicopters are Model MBB-BK 117 D-3 helicopters and this AD is also applicable to those helicopters.

**(d) Subject**

Joint Aircraft Service Component (JASC) Code: 6200, Main Rotor System.

**(e) Unsafe Condition**

This AD was prompted by reports of a main rotor (M/R) blade lead-lag damper in a tilted position. The FAA is issuing this AD to prevent an unbalance of the M/R system. The unsafe condition, if not addressed, could result in excessive vibration and reduced control of the helicopter.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0160, dated July 5, 2021 (EASA AD 2021-0160).

#### **(h) Exceptions to EASA AD 2021-0160**

(1) Where EASA AD 2021-0160 requires compliance in terms of flight hours, this AD requires using hours time-in-service.

(2) Where EASA AD 2021-0160 refers to its effective date, this AD requires using the effective date of this AD.

(3) Where the service information referenced in EASA AD 2021-0160 specifies to contact Airbus Helicopters or replace the Flex Control Unit (FCU) if you find cracks or damage at the protruding conical end of the integrated bearing sleeve, this AD requires removing the FCU from service and replacing with an airworthy part, or repairing the FCU in accordance with a method approved by the Manager, General Aviation & Rotorcraft Section, International Validation Branch, FAA; or EASA; or Airbus Helicopters' EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(4) Where a work card in the service information referenced in EASA AD 2021-0160 specifies performing the corrective action and contacting Airbus Helicopters when discrepancies are found, this AD requires performing the corrective actions as specified in the work card but does not require contacting Airbus Helicopters.

(5) Where a work card in the service information referenced in EASA AD 2021-0160 specifies to do a dye penetrant inspection for the inspection of Zone B of the rotor hub-shaft “if you are not sure there are cracks,” this AD requires performing a dye penetrant inspection.

(6) Where paragraph (5) of EASA AD 2021-0160 specifies “it is allowed to install a hexagonal screw P/N D622M0500207 on any helicopter, provided that installation is accomplished in accordance with the instructions of section 3.D of the ASB, or in accordance with the instructions of an AMM revision which includes the technical content of section 3.D of the ASB,” for this AD replace the text “in accordance with the instructions of section 3.D of the ASB, or in accordance with the instructions of an AMM revision which includes the technical content of section 3.D of the ASB” with “in accordance with the instructions of section 3.D of the ASB, or in accordance with the

instructions of an AMM revision which includes the identical content of section 3.D of the ASB.”

(7) This AD does not mandate compliance with the “Remarks” section of EASA AD 2021-0160.

**(i) No Reporting Requirement**

Although the service information referenced in EASA AD 2021-0160 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

**(j) Special Flight Permit**

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the helicopter to a location where the helicopter can be modified, provided no passengers are onboard.

**(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (l) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(l) Related Information**

For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email [andrea.jimenez@faa.gov](mailto:andrea.jimenez@faa.gov).



**(m) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2021-0160, dated July 5, 2021.

(ii) [Reserved]

(3) For EASA AD 2021-0160, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find the EASA material on the EASA website at <https://ad.easa.europa.eu>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1180.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to:

<https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on March 9, 2022.

Ross Landes, Deputy Director for Regulatory Operations,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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